

REMARKS

Upon entry of the present amendment, claims 1-6, 8 and 10-12 will have been amended and claims 13-18 will have been submitted for consideration by the Examiner. The amendment to the claims made by the present Response is not made in view of the prior art but is merely made in order to clarify the features of Applicant's invention. Accordingly, no prosecution history estoppel should attach thereto.

Initially, Applicant respectfully wishes to thank the Examiner for accepting the drawings filed in the present application on October 31, 2003, concurrently with the filing of the present application. Applicant further wishes to thank the Examiner for acknowledging his Claim for Foreign Priority under 35 U.S.C. § 119 and for confirming receipt of the certified copy of the priority document.

The Examiner is further thanked for considering each of the documents cited in the Information Disclosure Statement filed in the present application on September 9, 2005. Applicant further wishes to direct the Examiner's attention to additional Information Disclosure Statements filed in the present application on December 2 and 22, 2005 in which Korean and Chinese Office Actions and the references cited therein were brought to the Examiner's attention. Obviously, since these Supplemental Information Disclosure Statements were filed after the issuance of the outstanding Official Action, they could not have been considered by the Examiner. However, Applicant respectfully requests that the Examiner consider each of the documents cited in these Supplemental Information Disclosure Statements and confirm such consideration by forwarding an initialed and signed copy of each of the 1449 Forms

attached to these Supplemental Information Disclosure Statements to Applicant in the next communication in the present application.

In the outstanding Official Action, the Examiner rejected claims 1-3, 5-8 and 11 under 35 U.S.C. § 102(b) as being anticipated by WEBER (U.S. Patent No. U.S. Patent No. 5,491,670). Applicant respectfully traverses the above-noted rejection and submits that it is inappropriate with respect to the combination of features recited in Applicant's original filed claims and even more clearly inappropriate with respect to the features recited in Applicant's presently amended claims.

In setting forth the rejection, the Examiner asserts that WEBER uses an image sensor and directs Applicant's attention to the Abstract in this regard. However, neither the Abstract nor the remainder of the disclosure of WEBER discloses, teaches nor renders obvious an image sensor as recited in Applicant's claims.

In particular, WEBER, in the Abstract, clearly indicates that the system disclosed therein determines the position of an automatically guided vehicle disclosed by detecting sound generated by beacons positioned within the work space. The system of WEBER measures the time for the beacon sounds to reach the vehicle and determines a distance to or from each beacon based on these beacon sounds. From these measured distances and the known position of the beacons, the vehicle can determine its own relative position.

Clearly, WEBER does not disclose an image capturer as recited in the present claims nor a unit that photographs a surface. The system of WEBER measures the time for sounds generated by the beacons to reach the vehicle. Such a system does not require photographing of any surface and, in fact, does not contain any disclosure

relating to photographing a surface. Nor does the WEBER system capture images of a surface. Rather, WEBER uses a sonic system and does not disclose an image sensor as recited in the claims of the present application.

In setting forth the rejection, the Examiner asserted that video cameras are disclosed in the Abstract and at column 22, lines 53-56. It is respectfully submitted that the Examiner is incorrect. The Abstract makes no mention whatsoever of video cameras. Further, column 22, lines 53-56, refers to claim 30 which also does not mention video cameras.

The Examiner additionally makes reference to column 1, line 56, to column 2, line 16. This portion of the disclosure also does not support the Examiner's position. This paragraph of the disclosure relates to prior art of the WEBER invention, and particularly relates to a "third" method by which automatically guided vehicles attempt to navigate by the use of video cameras or sonic transducers with which the automatically guided vehicle attempts to "see" the surrounding environment. As this method is described in WEBER, the automatically guided vehicle determines a position within the work place by attempting to recognize landmarks within the work space. However, WEBER notes that such systems have a limited utility in environments that change with time and require excessively complex artificial intelligence logic. Nevertheless, WEBER does not disclose the mobile robot as recited (e.g., in claim 1) that comprises an image capturer that captures images of a bottom surface in accordance with motion of the mobile robot, a displacement measurer and a microcomputer as recited therein. Based upon the relatively general description of such a prior art system, it appears it would scan the room for landmarks (sonically or visually), but there is no evidence that it would

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capture images of a surface, as recited. Additionally, WEBER does not disclose the combination of features defining Applicant's invention as recited in claim 6 or in new submitted claim 13.

With respect to recitations of claim 5, 8 and 11, Examiner appears to rely on inherency. Applicant respectfully traverses and submits that the Examiner is incorrect and his reliance on "inherency" is also incorrect. In order for a claimed feature to be inherent, the feature must by necessity be present in order for the device to operate as disclosed. It is quite clear that a video camera does not, by "necessity", have to include a luminous diode, a light guide and the other recited elements of claim 5. Nor must the features of claims 8 and 11 "necessarily" be present in the WEBER disclosure. Accordingly, the Examiner's reliance on inherency is inappropriate.

For each of the above-noted reasons and certainly for all of the above-noted reasons, it is respectfully submitted that the claims in the present application are clearly patentable over the disclosure of WEBER as applied by the Examiner.

Applicant notes with appreciation the Examiner's indication that claims 4, 9, 10 and 12 contain allowable subject matter and that these claims would be allowable if rewritten into independent form including all the limitations of the base claim and any intervening claims. However, in view of the basis set forth for the allowability of independent claims 1 and 6, Applicant respectfully declines to rewrite any of the dependent claims into independent form.

Applicant further notes the Examiner's Statement of Reasons for the indication of allowable subject matter. In this regard, while Applicant does not disagree with any of the features noted by the Examiner, Applicant further notes that each of the claims in

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the present application set forth a particular combination of features and that the patentability of each claim is also based on a totality of the features recited therein. Accordingly, the reasons for allowance should not be limited to those enumerated by the Examiner.

By the present Response, Applicant has submitted several additional claims for consideration by the Examiner. These claims are submitted to be patentable at least in accordance with the reasons set forth above. In addition, it is respectfully submitted that a mobile robot as recited in claim 13 and including an image capturer, a displacement measurer and a calculator as recited therein are not taught, disclosed nor rendered obvious by the references of record in the present application.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection of claims 1-3, 5-8, and 11 as well as examination and an indication of the allowability of the newly submitted claims 13-18. Such action is respectfully requested and is now believed to be appropriate and proper.

SUMMARY AND CONCLUSION

Applicant has made a sincere effort to place the present application in condition for allowance and believes that he has now done so. Applicant has amended the claims to enhance clarity and has submitted several additional claims for consideration.

Applicant has discussed the disclosure of the reference and has pointed out the shortcomings thereof with respect to the features of the Applicant's claims. Applicant has discussed the recitations of the claims pending in the present application and has noted the deficiencies of the reference applied by the Examiner thereagainst. Accordingly, Applicant has thus provided a clear evidentiary basis supporting the patentability of all the claims in the present application and respectfully requests an indication to such effect in due course.

Regarding the newly submitted claims, Applicant has also submitted a clear evidentiary basis supporting the patentability thereof.

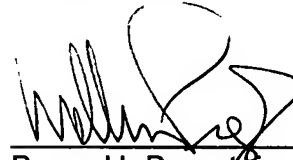
Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. § 1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. § 1.17 to Deposit Account No. 19-0089.

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Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Se-Wan KIM



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January 11, 2006  
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